Alaska Marine Conservation Council

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April 14, 2004

Dr. James W. Balsiger
Alaska Regional Administrator
National Marine Fisheries Service
PO Box 21668
Juneau, AK 88802-1668

RE: Draft Environmental Impact Statement For Essential Fish Habitat Identification and Conservation in Alaska

Dear Dr. Balsiger:

The Alaska Marine Conservation Council appreciates this opportunity to comment on the Draft Essential Fish Habitat Environmental Impact Statement (EFH EIS) for the Alaska Region. AMCC is a community-based organization of commercial and sport fishermen, subsistence users, scientists, and families whose ways of life, and often livelihoods, depend upon a healthy marine ecosystem. Our membership is greatly interested in working to describe and identify EFH for the North Pacific and Bering Sea. Even more so, we want to see sensitive marine habitats protected from future impacts and adverse fishing impacts mitigated as mandated by Congress in the Magnuson-Stevens Fishery Conservation and Management Act (MSA)[1].

A great deal of concerted work went into the EFH EIS by the National Marine Fisheries Service (NMFS) with significant contributions made by the public, the North Pacific Fishery Management Council (the Council), and the Council's EFH committee (of which AMCC was a member). NMFS made considerable progress since publishing the Essential Fish Habitat Environmental Assessment in January 1999, by analyzing new approaches for identifying and describing EFH and for analyzing alternatives to mitigate the adverse effects of fishing on EFH.[2] However, NMFS and the Council predetermined the outcome of the most critical decision of the EFH EIS, the determination of adverse impacts, by placing the entire burden of proof on the public and science to show that an

[1] Congress mandated that fishery managers "describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat." 16 U.S.C. § 1853(a)(7)

[2] Essential Fish Habitat Environmental Assessment for Amendments 55/55/8/5/5, January 1999, successfully analyzed alternatives for identifying and describing EFH but failed to include alternatives to mitigate adverse impacts.

adverse affect is occurring, and setting a standard for action, to mitigate adverse effects, that is unachievable with the best available science, a standard that is above that set by the MSA.

Despite volumes of published scientific literature and internal agency reports describing the adverse effects of bottom trawling, NMFS and the Council have come to the conclusion that, "No Council-managed fishing activities have more than minimal and temporary adverse effects on EFH for any FMP species ..."[3] This finding was accompanied by the caveats that "all fishing activities combined have minimal, but not necessarily temporary, effects on EFH" and that if the Council so chooses, "practicable measures could be taken to protect, conserve, and enhance EFH."[4] However at the beginning, NMFS downplays the science of the effects of bottom trawling on marine habitats and the Congressional mandate to minimize adverse affects caused by fishing, with the assertion that the issue at hand is to sort through the, "controversy surrounding the necessary level of protection needed for EFH" and that the EFH EIS is the arbitrator of the "substantial differences of opinion" about the effects caused by bottom trawling.[5]

AMCC's comments on the EFH EIS will focus on 1) the identification of fishing activities affecting EFH, 2) the NMFS and Council determination that no action is needed to mitigate bottom trawl impacts, 3) AMCC's preferred alternative for minimizing fishery impacts, 4) Habitat Areas of Particular Concern, 5) identifying and describing EFH and 6) various inaccuracies and public perception.

I) The Identification of Fishing Activities Affecting EFH.

> In general, relative to unfished habitat, areas fished with bottom trawls are expected to have reduced habitat complexity and species diversity, and changes in species composition. The level of habitat complexity depends on the structural components of the living and non-living benthic environment. Habitat complexity is reduced when epifauna that form structures are removed or damaged. Sedimentary bedforms are smoothed, and infauna that form burrows and pits are removed. Worldwide studies of the effects of bottom trawling have generally found that trawling reduces habitat complexity (Auster and Langton 1999). These findings have been confirmed by studies conducted in Alaska (Freese *et al.* 1999, McConnaughy *et al.* 2000).[6]

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[3] Draft Environmental Impact Statement for Essential Fish Habitat Identification and Conservation in Alaska. National Marine Fisheries Service Alaska Region. January 2004, at ES-9.

[4] Ibid.

[5] Ibid at ES-1. "Most of the controversy surrounding the necessary level of protection needed for EFH concerns the effects of fishing activities on seafloor habitats. Substantial differences of opinion exist as to the extent and significance of habitat alteration caused by bottom trawling and other fishing activities."

[6] Alaska Groundfish Fisheries Draft Programmatic Supplemental Environmental Impact Statement. National Marine Fisheries Service Alaska Region. September 2003. at 4.1-12., Auster, P.J., Langton, R.W. 1999. The Effects of Fishing on Fish Habitat. American Fisheries Society Symposium, 22: 150-187, Freese, L., Auster, P.J., Heifetz, J., and B.L, Wing. 1999. Effects of trawling on seafloor habitat and associated invertebrate taxa in the Gulf of Alaska. Mar Ecol Prog Ser., 182: 119-126, McConnaughey, R.A., K.L. Mier, and C.B. Dew. 2000. An examination of chronic trawling effects on soft-bottom benthos of the eastern Bering Sea. ICES Journal of Marine Science, 57: 1377-1388.

> ...
> An important consequence of trawling is the reduction in habitat complexity (architecture) that accompanies the removal of sessile epifauna and the alteration of physical structure, such as rocks and cobble... Disturbance of emergent epifauna can increase the predation risk of juvenile fish. Decreased prey abundance increases the foraging time for juvenile fish, thus exposing them to higher predation risk.[7]

The effects of bottom trawling on marine habitats are much less "a matter of opinion" as they are a matter of scientifically documented, real and measurable impacts. There are numerous primary studies, reviews of the scientific literature, data analyses, and annotated bibliographies that describe the direct and indirect effects of bottom trawling. The most complete list of research and articles on fishing effects is compiled in a NOAA Technical Memorandum, Mobile Fishing Gear Effects on Benthic Habitats: A Bibliography (second edition) by Dieter, B. E., D. A. Wion, and R. A. McConnaughey (editors) NMFS-AFSC-135. This bibliography was, "initially developed in support of field research programs investigating effects of bottom trawls on eastern Bering Sea, Gulf of Alaska and Aleutian Islands benthos." Yet the authors state, "Ultimately, this literature should aid the NMFS and the eight regional fishery management councils in assessing effects of fishing on EFH."[8] This bibliography, and many of the pertinent studies referenced in the report were not brought forward in the EFH EIS analysis of fishing effects. *The EFH EIS should be more inclusive of the scientific literature, incorporating studies both here in Alaska and worldwide, of the effects of bottom trawling on marine habitats.*

The draft EFH EIS fails to adequately consider trawling effects on crab populations.

The agency clearly excluded some key research that illuminates bottom trawl impacts in the Alaska region. For example, one study not included in the EFH EIS, *Taking refuge from bycatch issues: Red king crab (Paralithodes camtschaticus) and trawl fisheries in the eastern Bering Sea*, found that, "important breeding and hatching grounds and juvenile habitat are not protected by the refuge [Bristol Bay Trawl Closure], leaving long-term stock renewal subject to trawl impacts. We suggest that full consideration of the needs of all life history stages could lead to a more effective refuge design."[9]

The important "hatching grounds" referred to by Armstrong et al. are an essential habitat area necessary to support the full life cycle of a healthy Bristol Bay red king crab population. Alaska Fisheries Science Center scientists have presented in their research that the ultimate collapse of the Bristol Bay red king crab stock, beginning around 1980,

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[7] National Research Council. 2002. Effects of Trawling and Dredging on Seafloor Habitat.
[8] NOAA Technical memorandum NMFS-AFSC-135: Mobile Fishing Gear Effects on Benthic Habitats: A Bibliography (second edition) by Dieter, B. E., D. A. Wion, and R. A. McConnaughey (editors).
[9] Armstrong, D. A., Wainwright, T. C., Jensen, G. C., Dinnel, P. A., and Andersen, H. B. 1993. Taking refuge from bycatch issues: Red king crab (Paralithodes camtschaticus) and trawl fisheries in the eastern Bering Sea. Canadian Journal of Fisheries and Aquatic Sciences. 50(9): 1993-2000, as in 7.

was caused by trawling in the red king crab's "primary brood-stock refuge" and that continued trawling in this area (North of Unimak Island) has kept the population at low levels.[10] Although this research is still unpublished, NMFS Alaska Region has been well aware of it since it was first presented at the 2001 Symposium of the Effects of Fishing on Seafloor Habitats in Tampa, FL, which Alaska Regional managers attended. Additionally, the paper is referenced by NMFS in the Draft EIS for BSAI Crab Fisheries, citing the possibility of mismanagement and trawling as a plausible reason for the decline and continued suppression of the Bristol Bay red king population.[11]

The EFH EIS **makes no reference** to the fact that the presently low population levels of red king crab may have been caused by bottom trawling in the important "hatching grounds" or "primary brood-stock refuge", nor that continued trawling in this essential habitat may be suppressing the population from rebounding to historic levels. Instead, the analysis quickly dismisses the notion that trawling is having an effect on the habitat of red king crab.

> Fishing activities are considered to have overall minimal and temporary effects on the EFH for red king crab. Fishing activities thought to have adverse consequences to red king crab stocks have been previously mitigated by establishment of trawl closure areas. Given the very small overlap and fishing intensity in areas with red king crab of all life stages, professional judgment led to the conclusion that fisheries do not adversely affect the EFH for red king crab.[12]

In 1980, the abundance of legal male Bristol Bay red king crab was estimated to be 44.2 million crabs. In 1981 the abundance of legal male crab was estimated at 9.5 million crabs and has remained at low levels in recent years.[13] Published and unpublished scientific literature indicates that essential red king crab habitat is still being impacted by bottom trawling and that the recovery of the population, to support vibrant fisheries, is suppressed by bottom trawl practices. *NMFS needs to seriously consider in the EFH EIS, the science that suggests bottom trawling was one of the primary factors leading to the collapse of the Bristol Bay red king crab population and Alaska's most valuable fishery. Additionally, this same type of scrutiny must be given to the effects of bottom trawling on other crab populations in both the Gulf of Alaska and Bering Sea.*

In the Bering Sea, there have been persistent concerns over the effects of bottom trawling on snow crab (*C. opilio*) habitat. AMCC has brought forward this issue numerous times in the past but it has received little attention by fishery managers. In 1999, Bering Sea snow crab stocks were designated as overfished. Presently, the abundance of snow crab is below the minimum stock size threshold (MSST or overfishing level), and significantly

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[10] Dew, C.B., and R.A. McConnaughey. (submitted for publication) Did Bottom Trawling in Bristol Bay's Red King Crab Brood-Stock Refuge Contribute to the Collapse of Alaska's Most Valuable Fishery?

[11] Bering Sea Aleutian Islands Crab Fisheries Draft Environmental Impact Statement, March 2004, at 3-126.

[12] NMFS, *supra* note 3, at B-29.

[13] NMFS, *supra* note 11, at 3-127.

below it's rebuilt threshold.[14] The Pribilof Island Habitat Conservation Area and Red King crab savings area protect a small portion of the snow crab essential fish habitat from bottom trawl impacts, but account for only a minute portion of mature female habitat. Based on 1999 summer trawl surveys, existing trawl closures protected only 4% of all *opilio* habitat and 0.5% of female crab habitat. *Protecting mature female crab from bottom trawl impacts is highly important because they have the highest reproductive value, making a significant contribution to the rebuilding of the stock.*

Alaska Department of Fish and Game scientists have found that just east of Zhemchug Canyon plus further north, between the 200-meter contour to west of the 100-meter contour, there are significant concentrations of mature female oldshell snow crab:

> Although snow crab distributions in the eastern Bering Sea expand and contract as a function of overall abundance, their population centers change over time. The closest fit to the "basin model" is mature females since the early 1980s with its center around the northwestern part of the standard survey area.
> ...
> Oldshell mature females, which generally have been mature for at least 1 year, mostly occur in deep water and concentrate within a smaller area than other groups of crabs.[15]

Bottom trawl closures in this area of the northwestern eastern Bering Sea would protect large densities of mature female snow crab. However they will also benefit other components of a healthy ecosystem such as herring winter grounds, other FMP species, and benthic organisms such as sponges and sea pens that provide vertical relief to the soft bottom habitat. Currently the area identified to be important for mature female snow crab receives medium to relatively high levels of bottom trawling for flathead sole and other flatfish, trawling for Pacific cod, and pollock trawling.[16] It is known that vessels using pelagic trawls drag the footrope of the trawl on the seafloor.[17] Trawling may directly result in crab mortality or it may indirectly affect crab by disrupting reproductive or social behavior. *The EFH EIS needs to more closely consider the effects of trawling on the habitat important to mature female snow crab.*

The draft EFH EIS does not adequately consider the direct effects of bottom trawling on sensitive habitat features.

In addition to the effects of bottom trawling on crab stocks, it is clear that bottom trawling is having a significant adverse effect on key species that make up essential fish

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[14] Ibid at 3-40.

[15] Zheng, J., Kruse, G., Ackley, D. 2001. Spatial Distribution and Recruitment Patterns of Snow Crab in the eastern Bering Sea. In: Spatial Process and Management of Marine Populations, Alaska Sea Grant, AK-SG-01-02, 2001, pp. 233-255. Also see: *supra* note 11, at 3-89 and 3-97 for maps of mature female snow crab habitat.

[16] NMFS, *supra* note 3, at Figures 3.4-16, 3.4-17, 3.4-20 and 3.4-24.

[17] Ibid at 3-161, and see Loverich, G. 2001. *NET-Systems*. Trawl dynamics and its potential impact on habitat. Testimony submitted to the National Academy of Science, Evaluating the Effects of Bottom Trawling on Seafloor Habitats. Anchorage, Alaska. June 2001.

habitat, most notably benthic invertebrates such as coral and sponge. In the Gulf of Alaska, 5.5 metric tons of coral and 4.5 metric tons of sponge were taken as bycatch, on average, annually between 1997 and 2001 by bottom trawl fisheries. In the Aleutian Islands, 24.8 metric tons of coral and 118.6 metric tons of sponge were taken as bycatch, on average, annually between 1997 and 2001. And in the Bering Sea for the same years, 39.9 metric tons of coral and 226.8 metric tons of sponge were taken on average each year by bottom trawls.[18] Furthermore, this is not the whole picture of the extent of the damage caused by bottom trawling. The Programmatic SEIS notes that, "There is also unobserved mortality and damage to living habitat that would not be reflected as bycatch (Freese *et al.* 1999, Krieger and Wing 2000, Freese 2003). Assuming that most living habitat caught as bycatch dies, then observed bycatch is a minimum estimate of fishing-induced mortality."[19]

In contrast to the NMFS EFH EIS, the Programmatic SEIS gives a much more clear view of the impacts of fishing, most notably bottom trawling, on seafloor habitats. For example, "The Programmatic SEIS baseline evaluation identified 8,000 square miles of the Bering Sea with high impact values for living substrates."[20] And:

> The Programmatic SEIS baseline evaluation identified areas of high impact on living substrates and noted the estimated high potential impact level to benthic living structure and the size of affected areas. The analysis also considered the likelihood that those areas represent a unique habitat for managed fish species as determined by geography and oceanography, and not equivalent to all other habitat in the same classification. The analysis also concluded that coupled with historical impacts, impacts to long-lived, slow growing species (i.e., coral) could cause long term damage and possibly irreversible loss of living habitat, especially in the Aleutian Islands.[21]

In 2002, the National Research Council (NRC) published a thorough review of the effects of bottom trawling on seafloor habitats.[22] In summary, the NRC found:

- Trawling and dredging reduce habitat complexity.

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[18] NMFS, *supra* note 6, at A-T-535.

[19] Ibid at 4.1-14, and see Freese 1999. See also: Krieger, K.J. and B.L. Wing 2002. Megafauana associations with deepwater corals (Primnoa spp.) in the Gulf of Alaska. Hydrobiologia 471:83-90. Freese, L.J. 2003 (in press). Trawl induced damage to sponges observed from a research submersible. Marine Fisheries Review.

[20] Ibid at 4.1-6, Note: pg 4-402 of the draft EFH EIS states that the Programmatic evaluation identified "800 [sic] nm^2 of the EBS with high impact values for living substrates". This should be changed to 8,000 nm^2.

[21] Ibid at 4.1-5.

[22] NRC, *supra* note 7.

- Repeated trawling and dredging result in discernable changes in benthic communities.
- Bottom trawling reduces the productivity of benthic habitats.
- Fauna that live in low natural disturbance regimes are generally more vulnerable to fishing gear disturbance (i.e. deepwater corals and sponge).

AMCC recognizes that fishery managers have taken significant measures to protect habitat from bottom trawl impacts in the past. The southeast Alaska no-trawl zone, the Pribilof Island Conservation Area and the closures around Kodiak provide valuable protection to sensitive habitats from bottom trawl impacts. Although the fact remains that bottom trawls are still impacting sensitive habitats in the Alaska region. This is evident from the alarming amount of biotic features such as coral and sponge taken as bycatch each year in the trawl fisheries with serious concerns about the effects on associated rockfish species. Cold-water corals can be extremely long-lived; they create structurally complex habitats and are areas of high taxonomic diversity. Researchers have documented that Alaska cold-water corals provide important habitat features for both commercial and non-commercial species[23]. *The continued impacts to coral, sponge, rockfish and crab habitat is unacceptable and action is needed to mitigate the effects of bottom trawling in these areas.*

The Benefits of Closing Areas to Bottom Trawling.

Researchers are beginning to see the benefits of area closures to bottom trawls. For example, in areas closed to trawling off Kodiak Island, researchers documented high-density groves of sea whips. Inside these high-density groves of sea whips, researchers documented an increased abundance of gadids, increased abundance of prey species and 33% more juvenile Tanner crab than in nearby areas open to trawling.[24] Research in the Bering Sea comparing heavily trawled areas to areas closed to trawling found that there is increased habitat complexity (seafloor architecture) and biological diversity in the areas closed to trawling.[25]

Research conducted in a year round trawl closure in the Mediterranean Sea, found an 8-fold increase in total biomass following four years of trawl closures and a significant increase for 10 of 11 target species.[26] Other research comparing three trawl closures in the Aegean Sea (Greece) to three nearby open areas found that the total biomass was higher in the untrawled areas in relation to the trawled ones. Diversity indices did not

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[23] Krieger, K.J., and B.L. Wing. 2002. Megafauna associations with deepwater corals (*Primnoa* spp.) in the Gulf of Alaska. Hydrobiologia 471: 83-90.

[24] Stone, R.P., M.M Masuda, and P.W. Malecha. (in press) Spatial distribution and abundance of epifauna on adjacent soft-bottom areas open and closed to bottom trawling in the Gulf of Alaska. See also: AFSC 2003. Effects of Fishing Gear on Seafloor Habitat Progress Report for FY 2003. available at: (*http://www.afsc.noaa.gov/abl/MarFish/geareffects.htm*)

[25] McConnaughey, R.A., Mier, K.L., Dew, C.B. 2000. An examination of chronic trawling effects on soft-bottom benthos of the eastern Bering Sea. ICES Journal of Marine Science, 57: 1377-1388.

[26] Pipitone, C., F. Badalamenti, G. D'Anna and B. Patti (2000). Fish biomass increase after a four-year trawl ban in the Gulf of Castellammare (NW Sicily, Mediterranean Sea). Fisheries Research (Amsterdam) 48(1): 23-30

exhibit any particular trend, but larger specimens of the target species appeared in the untrawled areas.[27] *These two studies are applicable to understanding the benefits of area closures to trawling and should be incorporated into the EFH EIS.*

Area closures to trawling are a valuable habitat protection tool that can be implemented to mitigate and prevent adverse fishing effects. *Given that the predominant scientific literature shows that bottom trawling has a significant affect on seafloor habitats with the potential to change whole ecological communities, both mitigation measures and precautionary measures must be taken.* With the exception of Southeast Alaska, the trawl closures in federal waters off Alaska have been implemented after populations have crashed (e.g. Steller sea lions, Bristol Bay red king crab, Kodiak red king crab and Pribilof blue king crab). It would be much more appropriate to prevent population crashes by implementing area closures to bottom trawling to protect sensitive habitat areas before there is a crisis.

II) NMFS and the Council predetermined the outcome of the fishery effects analysis by setting a bar for determining adverse effects that is unachievable based on the best available science.

> "Despite the estimates of the type, direction, and level of disturbance that fishing activities can have on continental shelf systems, fishery management councils in the United States have taken minimal steps to implement habitat conservation measures. The basic rationale for lack of action has been that without both proof of habitat impacts by particular gear and a greater understanding of the linkages between particular habitats and exploited species, there is not enough information to be precautionary."[28]

The analysis of the effects of fishing was designed from the beginning so that it would be virtually impossible to prove that a managed fishery is having an effect on the essential habitat of managed species that is more than minimal and not temporary. In December 2002, the Council adopted a draft problem statement to guide the analysis that sets an unachievable standard for determining adverse impacts. In their problem statement, the Council declares, "The intent of the Council is for those FMP species [managed species] **where data are available**, habitat measures should be applied to minimize the effects of fishing on habitat essential to continued **productivity** of the managed species."[29]

Despite being notified by AMCC prior to adopting their problem statement that data is not available to link production rates of a species to habitat type, quantity, quality or location, the Council with the support of NMFS, adopted this standard for determining if

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[27] Vassilopoulou, V. and C. Papaconstantinou (2000). Comparative study of fish assemblages in trawl reserves and adjacent areas. 6th Hellenic Symposium on Oceanography and Fisheries. Chios, Greece, May 23-26, 2000. Proceedings. Volume 2. Fisheries, Inland waters, Aquaculture. 2: 192-194.

[28] Auster, P.J. 2001. Defining Thresholds for Precautionary Habitat Management Actions in a Fisheries Context. North American Journal of Fisheries Management 21:1-9.

[29] NMFS, *supra note* 3, at 1-3.

fishing effects on habitat would require mitigation.[30] By adopting this unachievable standard of proof, NMFS and the Council predetermined that they would not mitigate bottom trawl effects.

The data linking production rates to habitat is considered by NMFS as "level 4" data.[31] In the Alaska region, only level 2 data and in a few instances, level 3 data are available. At level 2, quantitative data (i.e. density or relative abundance) are available for the habitats occupied by a species or life stage. The best available science suggests that the degree, to which the habitat is utilized by managed species, is indicative of its habitat value. In **no** instance do we have level 4 data in which "essential habitats are those necessary to maintain fish production consistent with a sustainable fishery and the managed species contribution to a healthy ecosystem."[32]

Since NMFS has only level 2 data for most managed species, it would be more appropriate to assume that linkages exist between managed species and habitat features, since with level 2 information, "the degree that habitat is utilized is assumed to be indicative of habitat value."[33] This is exactly the approach taken in the Programmatic SEIS:

> The Programmatic SEIS evaluated impacts to the habitat itself, focusing on habitat features that might provide functions to managed species and speculated that linkages to productivity existed. Considering the paucity of information on habitat function for species life history stages and the broader scope of the Programmatic SEIS, it did not depend on finding proof of such linkages.[34]

Nevertheless, the Council's misguided problem statement was adopted by NMFS as the standard for evaluating adverse effects caused by fishing. The two principal considerations for assessing fishery effects were the output of the fishery effects model (a newly developed model whose results are subject to considerable uncertainty) and an assessment of the stock condition of each species relative to MSST (the overfishing level or 20% of the unfished biomass).

The fishery effects model found that there are long-term effects of fishing, particularly bottom trawling, on benthic habitat features off Alaska. However, NMFS decided that this alone was not compelling enough to warrant any mitigation. The evaluating scientists were instructed to use the ability of a stock to stay at or above MSST as a proxy for the stock's ability to support both a sustainable fishery **and** a healthy ecosystem. (If a stock is at or just above 20% of its unfished biomass, is it really contributing to a healthy ecosystem let alone sustaining a fishery?) Furthermore the analysts were told, "For species where MSST could not be estimated with available data (recruitment estimates

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[30] Alaska Marine Conservation Council letter to Dr. James Balsiger, Jon Kurland and the North Pacific Fishery Management Council, RE: Essential Fish Habitat/ Council motion on October 7, 2002. October 30, 2002.
[31] EFH Final Rule 50 CFR § 600.815 (a)(iii)(4)
[32] NMFS, *supra* note 3, at 3-173.
[33] Ibid.
[34] NMFS, *supra* note 6, at 4.1-6.

not available) [stocks in Tiers 4-6], assessing effects on EFH had to rely on other proxies or ratings of 'unknown' were necessary."[35]

What ensued was a superficial assessment in which the analysts simply said that there is no effect of fishing on the essential fish habitat of a managed species if the stock is currently above MSST. If there was any doubt at all, or MSST was not available, a rating of "unknown" was given. The burden of proof was entirely laid on the individual evaluating scientist to provide evidence that fishing is impacting the habitat necessary to support the productivity of managed species. If such proof was unattainable (i.e. no level 4 data), the individual was instructed to give a rating of "unknown" effect. Of the 35 managed species and species groups evaluated for fishing effects, by each of three life history process, spawning/ breeding, feeding and growth to maturity, one third of the 105 ratings were "unknown". The rest were given ratings of minimal and temporary.

As an example of this approach, consider these findings from the effects of fishing analysis[36]:

Bering Sea and Aleutian Island Atka Mackerel were given an overall "minimal and temporary" evaluation:

"A 15 percent reduction in non-living substrate in the AI shallow waters may affect spawning habitat; however, empirical evidence (ability of the stock to remain above MSST) indicates minimal effects on breeding success and subsequent recruitment."

BSAI Shortraker and Rougheye Rockfish are given an "unknown" rating, despite serious concerns about the status of these stocks and potential overfishing.[37]

"Information is lacking regarding the habitat requirements for feeding, reproduction, and growth to maturity for both species in the Bering Sea and Aleutian Islands."

And, even when stocks are below MSST, there is no need to give a rating of more than minimal and temporary:

"Although both the Pribilof Islands stock and St. Matthew stock of blue king crabs are considered below MSST, habitat loss or degradation by fishing activities is not thought to have played any role in the decline of these stocks."

Using a stock's relationship to MSST (20% of its unfished biomass), as a primary indicator of adverse effects to essential fish habitat is inappropriate, inconsistent with the EFH Final Rule and inconsistent with the MSA. Furthermore, waiting

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[35] NMFS, *supra* note 3, at B-24: B-25.

[36] The following quotes are from NMFS, *supra note* 3 at Table B.4-2.

[37] If Shortraker and Rougheye rockfish were broken out of their complex by species and area, overfishing would have occurred numerous times in recent years. See Appendix A, Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Bering Sea/ Aleutian Islands Regions. NPFMC. November 2003, at 673-674.

until a stock approaches MSST before mitigating fishery impacts can jeopardize sustainable fisheries and a healthy marine ecosystem.

Managing habitat on a species-by-species basis has led NMFS to put the burden of proof on the scientific community and the public to acquire a presently unachievable level of data before any action is taken to protect the habitat of a particular species. This has quickly turned into a tactic for inaction. Both NMFS and the Council were notified by the NPFMC Scientific and Statistical Committee (SSC) that establishing links between stock productivity and habitat are virtually impossible to establish:

> Some have argued that sustained productivity of Alaskan groundfish fisheries does not prove evidence of loss of productivity from habitat damage. On the other hand, linkages between habitat and productivity of FMP species are virtually impossible to establish experimentally. Based on the NRC trawling effects report and other reviews, the presumption is that mobile-bottom contact gear affects habitat.[38]

The SSC reiterated this concern in March 2004 when they stated:

> The SSC notes that it may not be possible to motivate the protection of rare and fragile habitats (e.g. habitat found on seamounts and coral gardens) solely on the basis of their linkage to the productivity of managed species.
> ...
>
> The SSC believes that this is a very high standard of evidence and may not be consistent with [the] Council's precautionary approach. The SSC recognizes that there are high costs and a long time frame required to achieve a scientifically credible understanding between these habitats and fish productivity.[39]

To justify the use of MSST as one of two evaluation methods for determining adverse effects, NMFS cites the definition of essential fish habitat which states that EFH "means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity" and that "'necessary' means the habitat required to support a sustainable fishery and the managed species contribution to a healthy ecosystem."[40] NMFS stated in their analysis of fishery effects that any fishery that is at or above MSST is sustainable. Additionally, stock assessment scientists were instructed to use MSST as a proxy for the ability of a managed species to contribute to a healthy ecosystem.[41]

First, *MSST is an inappropriate indicator of a sustainable fishery.* National Standard 1 states that, "Conservation and management measures shall prevent overfishing while

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[38] NPFMC SSC, January 2003. Draft Minutes, at 5.
[39] NPFMC SSC, March 2004. Draft Minutes, at 5.
[40] EFH Final Rule 50 CFR § 600.10 Definitions – "'necessary' means the habitat required to support a sustainable fishery and the managed species contribution to a healthy ecosystem."
[41] NMFS, *supra* note 3, at B-24:B-25.

achieving, on a continuing basis, the OY [optimum yield] from each fishery for the U.S. fishing industry."[42] Optimum yield means the amount of fish that will provide the greatest overall benefit to the Nation, with respect to food production, recreational opportunities **and** taking into account the protection of marine ecosystems. *A sustainable fishery is one that is achieving optimum yield while maintaining viable populations (including those of unexploited species), maintaining evolutionary and ecological processes and accommodating human use.*

Allowing a population to be fished to 20% of its unfished biomass before taking action to protect its habitat does not maximize benefits to the nation or maintain a healthy role in the ecosystem. If habitat impacts indeed play a role in the decrease of stock productivity, it may take decades to centuries (in the case of some coral and sponge species) for those habitats to recover and for stocks to rebuild. Additionally, if a fishery closes due to overfishing, there will be serious repercussions for fishermen, processors and communities who depend upon healthy fisheries. *We do **not** recommend that the ability of a fishery to maintain optimum yield, be replaced as a surrogate for the MSST evaluation. We argue that the ability of a stock to stay at or above MSST is not an appropriate measure of sustainability.*

Second, when evaluating the impacts to EFH, it is not appropriate to ask only if the impacts "affect the ability of the managed species to support a sustainable fishery and a healthy ecosystem." The EFH regulations define adverse affects much more specifically than that:

> Adverse effect means any impact that reduces quality and/ or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, if such modifications reduce the quality and/ or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.[43]

Third, using MSST as a measure of evaluating whether or not adverse effects require mitigation is inconsistent with the intent of the Magnuson-Stevens Act. NMFS recognizes this in the preamble to the EFH Final Rule, "It is not appropriate to require definitive proof of a link between fishing impacts to EFH and reduced stock productivity before Councils can take action to minimize adverse fishing impacts to EFH to the extent practicable. Such a requirement would raise the threshold for action above that set by the Magnuson-Stevens Act."[44]

It was not the intension of Congress for NMFS to wait until fisheries collapse before taking action to protect essential habitats. In the 1996 reauthorization of the Sustainable Fisheries Act, Congress declared:

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[42] 50 CFR § 600.310 National Standard 1 – Optimum Yield.
[43] EFH Final Rule 50 CFR § 600.810 (a)
[44] EFH Final Rule – response to comments, January 17, 2002 page 2354.

> One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.[45]

Due to a high level of concern with the analysis of the effects of fishing on essential fish habitat, AMCC recommends that NMFS reevaluate their conclusions in a second draft document. The affects analysis and hence the conclusions drawn from it, is fatally flawed. *The second draft should not rely on MSST as a standard for evaluating fishery effects. Instead it should more accurately reflect the best available information, focusing on habitat features that likely provide functions to managed species and inferring that linkages to productivity exist.* This would be more consistent with the EFH Final Rule, the Magnuson Stevens Act, and would be responsive to comments raised by scientists on the inability of the current level of scientific information to draw a direct link between stock productivity and habitat features.

III) Selecting an Alternative to Minimize Adverse Fishing Effects.

"The conceptual basis for use of precautionary strategies in fisheries management rests with the premise that decisions must be made in favor of maintaining the integrity of populations and associated environmental conditions, when if no actions are taken due to scientific uncertainty, inadvertent damage may result."[46]

The Alaska Marine Conservation Council supports mitigation alternative 5-B for the Gulf of Alaska, Aleutian Island and Bering Sea.

Among the alternatives to mitigate fishery impacts on essential fish habitat, AMCC supports the adoption of alternative 5-B. This is a significant departure from the NMFS and Council recommendations, which support status quo management, or no action to mitigate adverse effects. We agree with the NMFS recommendations to continue to analyze carefully the effects of fishing on sea floor habitats, to support research on EFH, and to take additional precautionary management actions to protect long-lived sea floor habitats such as coral gardens. However, these should not further delay the region-wide conservation, enhancement, and mitigation of known adverse effects on essential fish habitat.

Alternative 5-B provides the most comprehensive approach to protecting coral and sponge habitats in the Aleutian Islands. The NMFS analysis of alternative 5-B finds that, "While moderate, substantial changes were estimated for coral LEIs [long term effects index] (-11 percent for coral in the shallow habitat and –20 percent for coral in the deep habitats), the very large proportion of both habitat types closed to trawling affords very substantial protection to coral in the AI."[47]

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[45] 16 U.S.C. § 1801(a)(9)
[46] Auster, *supra* note 27.
[47] NMFS, *supra* note 3, at 4-199.

Due to the total allowable catch (TAC) reduction component of Alternative 5-B, there would be revenue at risk of approximately $6.66 million or 12 percent of the $55.81 million of status quo revenue in the Aleutian Island Atka mackerel, rockfish and Pacific cod trawl, groundfish fisheries.[48] *AMCC believes that this TAC reduction is not a vital component of the alternative and that the conservation objectives can still be realized without implementing it.* Second, the estimated $8.05 million reduction in revenue at risk in the eastern Bering Sea Pacific cod trawl fishery is entirely avoidable whether or not a TAC reduction is implemented, by splitting apart the Aleutian Island and eastern Bering Sea Pacific cod TAC.

Alternative 5-B substantially reduces habitat impacts along the Gulf of Alaska slope. "LEI values were substantially reduced for soft-bottom bio- [structure] (-47 percent) and nonliving (-24 percent) structure, hard bottom bio- (-54 percent) and nonliving (-57 percent) structure. Estimated increased effects on adjacent deep shelf habitats from fishing redistribution were small proportional increases (less than 5 percent) to effects that were already small (less than 5 percent)."[49]

Alternative 5-B will have positive effects for *opilio* crab in the Bering Sea. The analysis of 5-B finds, "The closure areas in the BS overlap with the *opilio* crab EFH areas of concentration. The trawl closure areas may improve habitat and reduce bycatch mortality for *opilio* crab within the closure area by eliminating potential impacts due to bottom trawling."[50] There are some concerns that the rotational closures were improperly designed. *NMFS should consider two additional options; 1) permanently close to all trawling (including pelagic trawling), one-third of each of the five areas and choose closed areas that would likely provide maximum benefits to mature female snow crab, and 2) use a rotational approach that leaves only one-third of each of the five blocks open for five years so that after fifteen years, all areas would be closed for ten years rather than only five.*

Analysis of alternative 5-B found that bottom trawl impacts would be reduced on some Gulf of Alaska slope areas, in some areas of the northwest Eastern Bering Sea and in a substantial portion of the Aleutian Island shelf and slope. The analysis states, "Closure of the areas to bottom trawling may help maintain (or even enhance) productive fish habitat and thereby help sustain fish populations that rely on these areas. Structural habitat diversity supported by HAPC biota would be provided greater protection in this alterative relative to alternative 1 [status quo]."[51]

According to NMFS assessments, Alternative 5-B is practicable even though there would be short-term operational costs.[52] The long-term positive effects to sensitive habitats,

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[48] Ibid at 4-226.
[49] Ibid at 4-199: 4-200.
[50] Ibid at 4-222.
[51] Ibid at 4-236.
[52] Ibid at ES-10. "Given the limited adverse effects on EFH, and the costs and benefits of the alternatives, it appears that most alternatives would be practicable to implement, with the exception of Alternative 6..."

FMP crab species, and health to the marine ecosystem would outweigh the estimated costs.

The analysis of 5-B does predict a potential adverse effect to Steller sea lions (SSL) and ESA-listed whales if this alternative were implemented. The analysis of this potential consequence appears to be extremely flawed. In the Aleutians, Alternative 5-B maintains current fishing patterns by leaving open areas historically important to fisheries using bottom trawls, while closing areas with high coral and sponge bycatch. This alternative would actually close some areas of SSL critical habitat to bottom trawling while maintaining existing fishing patterns. *Alternative 5-B does not change any SSL management measures. We seriously question the assertion that alternative 5-B may result in increased interactions with Steller sea lions and ESA-listed whales and this finding should be reevaluated.*

IV) Protecting Habitat but Not Addressing the Problem – Habitat Areas of Particular Concern.

Habitat Areas of Particular Concern (HAPC) are a valuable tool for prioritizing important areas within essential fish habitat for designation and conservation. However, solely relying on the HAPC process to minimize adverse fishing effects on essential fish habitat is inappropriate. The Council's current HAPC priorities, seamounts and relatively undisturbed coral gardens with rockfish associations do not by definition, minimize bottom trawl impacts, the gear type identified as having the highest impact on sensitive habitats. Instead, the Council and NMFS are considering habitat protection measures for sites where bottom trawling does not occur.

Some current HAPC proposals are designed to minimize the effects of fixed gear on sensitive habitats. Although there are places, like coral gardens, where it is appropriate to have conservation measures that prevent all bottom contact fishing, the current HAPC priorities fail to address the known impacts of bottom trawling and they do not fulfill the legal requirement to minimize adverse effects.

AMCC supports Alternative 4, the type/ site based concept, as the most logical approach for identifying Habitat Areas of Particular Concern. Under this alternative the Council would select types of habitats like "living substrates in deep water" as habitats of particular concern because they meet one or more of the HAPC considerations; ecological importance, rarity, sensitivity, and vulnerability to human-induced disturbance.

Designating a HAPC type would not necessarily result in management measures. Like the current HAPC type designations, this would simply provide focus for research and elevate attention towards particular habitat areas. Specific sites that meet the considerations established in the regulations could subsequently be designated and management measures designed to address problems identified for FMP species and their habitat. In the draft EFH EIS, NMFS states, "Alternative 4 may offer more potential benefits for target species than the other alternatives because the stepwise process of

selecting habitat types and then specific sites could yield a more rational and structured effort to ensure that HAPCs would focus on the habitats within EFH that are most valuable and/or vulnerable."[53]

The analysis does note that the adoption of Alternative 4 will rescind current HAPC designations of living substrates in deep and shallow water and freshwater areas used by anadromous fish. AMCC agrees with NMFS in stating that, "support of this alternative should not be construed to imply that the existing HAPCs represent unimportant habitat types. On the contrary, the habitat types included in the existing HAPCs are extremely important for Council managed species. However, for management purposes, identifying habitat types of concern and then designating specific HAPC sites within those habitat types would yield a more effective tool for habitat conservation."[54] *Recognizing that existing HAPC types are "extremely important for Council managed species", AMCC recommends that NMFS retain living substrates in deep and shallow waters and freshwater areas used by anadromous fish as habitat types of particular concern.*

In Appendix J, Proposed HAPC Identification Process, the HAPC consideration, rarity, is made to be a mandatory criterion for all HAPC proposals.[55] The EFH Final Rule clearly does not elevate the importance of any of the four considerations for identifying HAPCs, nor does it specify that more than one criterion must be met. By making rarity a mandatory criterion, NFMS and the Council are changing the standards from those published in the regulations. This mandatory criterion puts an unjustified burden on the public submitting HAPC proposals and it may prevent managers from designating the most important areas of essential fish habitat as HAPC, simply because the habitat is not uncommon. *There is no justification for why this criterion necessitates elevated importance over the other three equally important considerations defined in the Final Rule. Rarity should not be a mandatory criterion for HAPC proposals.* It appears to be an arbitrary decision without any positive attributes.

In the process for evaluating HAPC proposals, the HAPC process necessitates an additional step. *After the evaluation of candidate HAPCs by the scientific plan teams (J.4.2.2) and before the Council selects proposals for analysis (J.4.5), the submitters should be given an opportunity to revise and resubmit their proposals in response to comments made by the scientific and technical review teams.*

V. Advancing scientific understanding – Identifying and Describing Essential Fish Habitat

Among the alternatives to identify and describe essential fish habitat, AMCC supports Alternative 3, which will update existing EFH descriptions with more recent scientific information and improved mapping. The analysis finds that in comparison to Alternative 2, "Alternative 3 applies more recent information, new analytical tools, and better mapping, which results in geographically smaller EFH description and identification for

[53] NFMS, *supra* note 3, at ES-5: ES-6.
[54] Preliminary Draft EFH EIS, at E-3.
[55] NMFS, *supra* note 3, at J-2.

some life stages for some species."[56] This alterative will designate as EFH all habitats within the general distribution of a managed species (FMP species) life stage. This alternative is the most risk-averse based on our current knowledge of habitat use by FMP species.

Identification and designation of essential fish habitat is critical for evaluating anthropogenic affects on habitat and increasing scientific understanding of the relationships between managed species and habitat features. NMFS should continually strive to improve this type of information.

VI. Inaccuracies and Public Perception.

Section 2.2.2 of the draft EFH EIS, "Overview and Previous Actions to Protect Fish Habitat", incorrectly describes some existing management measures as having habitat conservation benefits. While some actions were justifiably designed to protect and conserve habitats (such as the Sitka Pinnacles Marine Reserve), others such as seasonal bycatch closures and rationalization programs were not designed to minimize habitat impacts and do not achieve habitat conservation goals. *This section of the document should be revised to only include management measures that actually provide habitat conservation benefits, not speculate that a litany of past management actions do protect fish habitat.*

For example, the chum and chinook salmon savings areas in the Eastern Bering Sea where designed to minimize the bycatch of salmon. It was determined that these are areas of especially high salmon bycatch and that savings areas would provide a means to reduce the incidental take of salmon in the pollock fisheries.

In the Chum Salmon Savings Area, all trawling is prohibited during the month of August. However, based on estimated recovery periods of habitat features, this one-month hiatus is not sufficient for impacted habitats to recover. The area remains closed for the rest of the year if a bycatch cap of 42,000 chum is exceeded within the "catcher vessel operation area" prior to the "accounting period" (August 15 to October 14). Salmon caught outside of the accounting period or outside of the catcher vessel operation area do not apply towards the closure of the savings area. In recent years the savings area has been triggered closed, but vessels targeting pollock still catch high numbers of chum and other salmon outside of the savings area. Although chum salmon bycatch is controlled inside the savings area, bycatch is remaining high at an average of 69,264 chum and other salmon per year over the past eight years. Although this measure effectively puts pressure on the pollock industry to control salmon bycatch, it remains high, and trawling (and its effects on seafloor habitats) still occurs each year inside the savings area.

Similarly, the Chinook Bycatch Savings Areas were designed to minimize chinook salmon bycatch but they do nothing for habitat protection. There are two areas that close to trawling if the bycatch cap is exceeded before April 15 or after September 1. If the cap is reached after April 15 but before September 1, the savings areas close on September 1.

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[56] Ibid at 4-8.

The cap only applies to chinook caught by vessels targeting pollock. In 2003, the non-CDQ pollock fishery greatly exceeded the cap with a total catch of 44,748 chinook salmon. The savings areas were closed on September 1, 2003 but chinook were still caught outside of the savings areas.

We disagree with the assumption in the draft EFH EIS that rationalization programs will, by definition, result in added habitat conservation.[57] If designed with clear objectives for conservation, rationalization can be a means to help the fishing fleet comply with traditional habitat protection measures such as gear modification, effort reduction and closed areas. *EFH benefits that could occur through rationalization need to be more than an expectation; they need to be articulated in the design of a rationalization program, just like economic benefits.*

To ensure that EFH benefits occur, there must be measurable objectives in a rationalization plan that become the basis for evaluating the plan's effectiveness, continuation of the plan, or adjustments to the plan. It is not enough to say that, for example, a rationalized bottom trawl fleet will reduce the area of seafloor swept and assume that reduction protects EFH. Rather, it is critical for the protection of EFH that identified conservation areas are not swept. A combination of approaches are needed along with rationalization:

1) Spatial management (closed areas of sensitive habitats or key habitats for other species, or alternatively, areas open to certain gear types) and
2) A detailed rationalization plan with measurable objectives for habitat protection (reduced effort and gear modifications) and optimized fisheries, within the areas that remain open to bottom trawling.

Another misstatement is in the implication that Steller sea lion closures provide a significant benefit to essential fish habitat protection.[58] While, these closures limit fishery interaction between vessels targeting pollock, Pacific cod and Atka mackerel with Steller sea lions, they do not prohibit all bottom trawling from occurring inside protected areas. The Programmatic SEIS clearly makes this case:

> Areas seasonally closed to particular fisheries may afford limited protection to EFH. For example, in the current BSAI and GOA FMPs, seasonal closures to Pacific cod, Atka mackerel, and pollock fishing exist in areas of sea lion foraging. These closures, however, provide little protection to EFH because they are either fished seasonally and/or allow fisheries for other species. Thus, they address sea lion concerns but fail to address the need to fully protect

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[57] NMFS, *supra* note 3, at 2-8. The draft EFH EIS cites an unpublished report by members of the EFH committee (Gauvin et al. 2002.) to bolster NMFS assertion that all of the current rationalization programs benefit habitat conservation.

[58] Ibid at 2-5. "The measures recently approved relative to Steller sea lion protection provide full or partial closure to 58,000 nm^2 of the ocean." See also: Table ES-9. Alternative 1 (status quo) The table states that 53.4% of the AI shelf and upper slope is closed to bottom trawling year round. Yet the footnote states that this calculation includes SSL closures in AI that might be closed to directed fishing for only one target species. This is very misleading!

> EFH. Only year round closures for all species are considered to provide protection to EFH.[59]

The implication that North Pacific fishery management plans have already taken the necessary steps to fully achieve progressive, precautionary and ecosystem-based management is pervasive in this document. In fact, the EIS reads more like a justification of past decisions made prior to the analysis, designed to lead the reader to the conclusion that status quo management is more than sufficient.

The1999 National Research Council report, *Sustaining Marine Fisheries* recommended that fishery managers adopt an ecosystem-based approach with specific recommendations such as, "adopt a precautionary approach to deal with uncertainty" and "establish marine protected areas as a buffer for uncertainty."[60] The draft EFH EIS says, "The management measures implemented for Alaska groundfish fisheries generally achieve all of the measures recommended by the NRC, so current fishery management policies can be considered an ecosystem-based approach."[61] First, as previously mentioned, most of the marine protected areas off Alaska were established in response to population crashes such as sea lions and crab. While these are important measures, they were reactive and not precautionary.

Second, serious and valid concerns remain about the impacts of bottom trawling on sensitive habitats in the North Pacific. Instead of embracing an ecosystem-based approach to protect marine habitat known to be vulnerable to impacts, NFMS and the Council are putting an unjust burden of proof on society to prove there is an adverse effect on managed species before taking action to protect their habitat. NMFS and the Council are being entirely un-precautionary by setting aside what is know about bottom trawl impacts and by designing this process so that only after managed species crash, mitigation measures will be considered. This furthers a legacy of crisis-based management and does nothing to move the region towards ecosystem-based management.

The design of the draft EFH EIS effects analysis is a classic case of putting the burden of proof on society to prove that an affect is occurring before any action is taken. Paul Dayton in the February 1998 publication of SCIENCE suggested that fisheries managers use the statistical method of power analysis to allow for the buffering of uncertainty.[62] If we were to apply this statistical method to a proposal for restricting bottom trawling to protect benthic habitat, Dayton states:

> If the proposal is accepted and fishing is restricted, when in fact it has serious impact, it would be a type I error; however, if the proposal is rejected and trawling results in habitat destruction, a type II error is made.

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[59] NMFS, *supra* note 6, at 4.1-15.
[60] NRC 1999. Sustaining Marine Fisheries as in NMFS, *supra* note 3, at 3-73.
[61] NMFS, *supra* note 3, at 3-73.
[62] Dayton, P.K. 1998. Reversal of the Burden of Proof in Fisheries Management. Science. 279 821:822

> Current management focuses on reducing the type I error because this kind of error results in catching fewer fish and is therefore highly visible to politicians and the fishing industry; management virtually ignores the type II error, principally because the deleterious effects are not immediately obvious. But ignoring the type II error results in failure to recognize and avoid long term damage such as the collapse of fisheries or environmental destruction.

The EFH EIS should detail both error types. It is very important that scientists articulate the consequences to the ecosystem of making each type of error. A type I error may result in short term economic loss but a type II error may result in the long term degradation of fish stocks and habitats. The Programmatic SEIS evaluation of habitat impacts focused on avoiding type II errors. The EFH EIS states that, "Reducing the probability of making a Type II error is more precautionary **and is more responsive to both EFH mandates** and the public comment received on the 2001 draft PSEIS."[63] It does not make any sense that NMFS would then focus the EFH EIS to avoid making type I errors, even though that is less responsive to the EFH mandate and public comment.

Thank you for this opportunity to comment on the draft Essential Fish Habitat Environmental Impact Statement for the Alaska Region. We look forward to working with the NMFS and the Council in the future to conserve, restore and maintain marine habitats upon which commercial, recreational and subsistence fisheries depend. This is a vital program for maintaining the health and diversity of our marine ecosystem and sustaining cultural and community needs. However, the program only has merit if properly implemented and based on our review of the draft EFH EIS, NMFS is clearly on the wrong track.

Sincerely,

Benjamin R Enticknap

Ben Enticknap
Fisheries Project Coordinator

[63] NMFS, *supra* note 3, at 4-401.